

PSYC6833: Advanced Applications of Perception and Learning in Psychology

Callaghan and Ourimbah
Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description

Psychologists have long abandoned the idea that our perceptions are simply an internal picture of the world, but there is no consensus on exactly how we maintain perceptual contact with the world. This course examines evidence for and against various theories of perception, addressing the question of how perception is organised. It links research on perceptual phenomena, research on pathways in the brain, and neuropsychology case studies, allowing students to see the importance of a relevant understanding of perceptual processes for both the psychology discipline and professional practice. Reading and language disorders are examined from both a clinical and a research perspective. The course also considers the other historically dominant field in psychology: learning. From Thorndike's, Skinner's and Pavlov's early work through to cognitive explanations of learning, we again focus on the experiments and theories that underpin our understanding of how humans learn. The course's coverage of associative learning provides a core foundation for further study in applications of Cognitive Behavioural Therapy (CBT).

This course forms part of an Australian Psychology Accreditation Council's accredited sequence.

Requisites

This course is only available to students enrolled in the Graduate Diploma in Psychological Science program [40223]

Contact Hours

Laboratory

Face to Face on Campus
2 hour(s) per Week for 8 Weeks
See course outline for lab schedule.

Lecture

Face to Face on Campus
2 hour(s) per Week for 12 Weeks

Unit Weighting Workload

10
Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10-unit course.

COURSE OUTLINE

CONTACTS

Course Coordinator	Callaghan and Ourimbah A/Prof Darren Burke Darren.Burke@newcastle.edu.au (02) 4349 4928
Teaching Staff	Other teaching staff will be advised on the course Canvas site.
School Office	School of Psychological Sciences W210 Behavioural Sciences Building Callaghan psyc-admin@newcastle.edu.au +61 2 4921 5505 School of Psychological Sciences Room HO 143 - Humanities Building Ourimbah asu-ourimbah@newcastle.edu.au +61 2 4349 4934

SYLLABUS

Course Content	<ul style="list-style-type: none">• Historical background of theories of learning and perception• Contemporary theories of perception and learning and how these theories may be used in applied and clinical situations• How information that is extracted by different brain regions results in our unified perceptual experience• Examining perceptual neuropsychology case studies, revealing the function of our perceptual systems• Human language perception and production systems• How language dysfunctions and disorders facilitate our understanding of human language• Theories and experimental phenomena of Pavlovian and instrumental conditioning, and their modern, real-world applications.
Course Learning Outcomes	<p>On successful completion of this course, students will be able to:</p> <ol style="list-style-type: none">1. Apply evidence from perception research and neuropsychological case studies to evaluate the impact of perceptual dysfunction for affected individuals.2. Apply information from theoretical issues and empirical research in the contemporary study of associative learning to real world examples of applied learning.3. Apply principles of associative learning to the aetiology of clinical/treatment procedures.4. Apply core principles of learning experimentation and theory to example research designs in experimental and applied learning.

SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due	Expected Study Activities (average of 6-7 hours per week)
1	26 Feb	Theoretical approaches to Perception and Learning A/Prof Darren Burke	Lab 1: Measuring Perception		Read over Course outline. Plan your workload across the semester to make sure you can complete all assignments on time (in all courses).
2	4 Mar	Perception 1: Colour and lightness A/Prof Darren Burke	Lab 2: Aftereffects and brain inferences		Review lecture material (1-2 hours)
3	11 Mar	Perception 2: Depth and motion A/Prof Darren Burke	Lab 3: Depth, stereo, and the logic of perceptual inferences.		Review lecture material (1-2 hours). Pick a topic for the Perception assignment. Start reading background literature
4	18 Mar	Perception 3: perceiving objects A/Prof Darren Burke	Lab 4: Perceiving faces		Review lecture material (1-2 hours). Begin drafting ideas for Perception assignment. Ask questions now if things are not clear. Make sure you include information about techniques for accurately measuring Perception
5	25 Mar	Perception 4: Faces and interactions A/Prof Darren Burke	Lab 5: Real world perceptual problems		Review lecture material (1-2 hours). Use feedback from Lab Class to revise plan for Perception Assignment
6	1 Apr	Perception 5: Visual neuropsychology A/Prof Darren Burke			Review lecture material (1-2 hours)
7	8 Apr	Perception 6: development, flexibility, and cross-modal interactions A/Prof Darren Burke		Perception assignment (April 12)	Review lecture material (1-2 hours)
Mid Term Break					
Mid Term Break					
8	29 Apr	Learning 1: Classical conditioning A/Prof Darren Burke	Lab 6 (online): 8 ways of learning, an indigenous perspective		Review lecture material (1-2 hours). Pick a topic for the Learning assignment. Start reading background literature
9	6 May	Learning 2: Instrumental conditioning	Lab 7: Evaluative conditioning		Review lecture material (1-2 hours). Begin drafting ideas for Learning assignment. Ask questions now if things are not clear.
10	13 May	Learning 3: Complications and	Lab 8: Real world learning problems		Review lecture material (1-2 hours).

		applications A/Prof Darren Burke			Use feedback from lab class to revise plan for Learning assignment
11	20 May	Learning 4: Learning without awareness. A/Prof Darren Burke			Review lecture material (1-2 hours)
12	27 May	Learning 5: Discrimination learning and Concepts A/Prof Darren Burke		Learning assignment (May 31)	Review lecture material (1-2 hours)
13	3 June	Online Q & A zoom sessions at lecture times			Revise for Exam
Examination Period					
Examination Period					

ASSESSMENTS

This course has 3 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Written Assignment 1	April 12	Individual	30%	1, 4
2	Written Assignment 2	May 31	Individual	30%	2, 3, 4
3	Formal Examination	Formal exam period	Individual	40%	1, 2, 3, 4

Late Submissions

The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Extended Written Assignment 1

Assessment Type

Report

Purpose

This assessment is designed to require you to demonstrate your understanding of what is known about the way in which the visual perception works, by applying that knowledge to solving a real-world problem. You will use knowledge from the lectures, and techniques learned in lab classes, to design the study, and write it up as a report for a stakeholder.

Description

In this assessment you write a report (for a fictional stakeholder) that describes a research project you have designed that will gather data to address a real-world problem that involves an application of insights gained from the study of visual perception.

Weighting

30%

Length

1500 words

Word limits include headings, sub-heading, in-text citations, quotes and referencing but does not include the list of references, appendices, and footnotes. The word limit will allow a tolerance of 10% and any work after the maximum word limit will not be included within the allocation of marks. In other words, the marker will STOP reading at 1650 words.

Due Date

April 12

Submission Method

Online

Assessment Criteria

Criteria will be provided with the assessment description

Return Method

Online

Feedback Provided

Online

Assessment 2 - Extended Written Assignment 2

Assessment Type

Report

Purpose

This assessment is designed to require you to demonstrate your understanding of what is known about the way in which associative learning works, by applying that knowledge to solving a real-world problem. You will use knowledge from the lectures, and techniques learned in lab classes, to design the study, and write it up as a report for a stakeholder

Description	In this assessment you write a report (for a fictional stakeholder) that describes a research project you have designed that will gather data to address a real-world problem that involves an application of associative learning theory/insights
Weighting	30%
Length	1500 words Word limits include headings, sub-heading, in-text citations, quotes and referencing but does not include the list of references, appendices, and footnotes. The word limit will allow a tolerance of 10% and any work after the maximum word limit will not be included within the allocation of marks. In other words, the marker will STOP reading at 1650 words.
Due Date	May 31
Submission Method	Online
Assessment Criteria	Criteria will be provided with the assessment description
Return Method	Online
Feedback Provided	Online

Assessment 3 - Final Exam

Assessment Type	Formal Examination
Purpose	This exam is designed to test your understanding of the content covered in the lectures and lab classes in the course, your ability to describe that information concisely and accurately, and to apply it to novel examples.
Description	This is a formal exam containing short answer questions to test your understanding
Weighting	40%
Length	2 hours
Submission Method	Formal Exam
Return Method	Not Returned
Feedback Provided	No Feedback

ADDITIONAL INFORMATION

Grading Scheme This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.

- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face-to-face meetings or supervision.

Course Evaluation	Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.
Oral Interviews (Vivas)	As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination (viva) Procedure . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule .
Academic Misconduct	<p>All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students at the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35 .</p> <p>All assessments submitted in this course must be exclusively your <i>own</i> work. This means that you cannot have other people write any of your assignments or exam answers, but it also means that you cannot use any kind of generative AI (like ChatGPT) to write <i>any</i> of your work. AI may be helpful for generating some rough ideas for your work, but any suspected use of AI to produce prose for your assignments or exam will be passed on to a SACO for an academic misconduct investigation.</p>
Adverse Circumstances	<p>The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:</p> <ol style="list-style-type: none">1. the assessment item is a major assessment item; or2. the assessment item is a minor assessment item, and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system.3. you are requesting a change of placement; or4. the course has a compulsory attendance requirement. <p>Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at: https://policies.newcastle.edu.au/document/view-current.php?id=236</p>
Reasonable Adjustment Plan (RAP)	If you are registered with Accessibility and have been provided with a Reasonable Adjustment Plan (RAP), please ensure that you provide your Course Coordinator with a copy as soon you can or let your Course Coordinator know that you are still waiting for your RAP.
Important Policy Information	The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/no-room-for/policies-and-procedures that support a safe and respectful environment at the University.

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified, and an amended course outline will be provided in the same manner as the original.

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